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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,101	07/16/2001	Yasuhiko Ikeda	35.G2858	3550
5514	7590	05/27/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			NGUYEN, LAM S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/905,101	IKEDA, YASUHIKO	
	<b>Examiner</b>	<b>Art Unit</b>	
	LAM S NGUYEN	2853	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 12-17 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 5, 7-11 and 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09/13/01, 08/07/03, 12/10/2001</u>  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 6, 12-14, 16, 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiniji (JP 06344624).

Shiniji discloses an ink-jet recording apparatus comprising:

a carriage for serially moving a recording head for ejecting ink drops (FIG. 1, 3: the carriage 3 supporting the printhead 1 moves in the direction B or C);

position detecting means for detecting the position of the carriage in the serial direction (FIG.2, elements 8-9);

changing means (FIG. 3-4, element 23) for adjusting the width of a gap between the recording head and a back surface of a recording medium (FIG. 3-4: the distance L1 or L2) located at a position opposing the recording head (FIG. 3-4, element 1) (**Referring to claim 14**); and

recognizing means for recognizing a state of the changing means based on information from the position detecting means (paragraph [0010]).

**Referring to claims 3, 16:** wherein the position detecting means is a linear sensor which can detect the position of the carriage over the range of the serial movement of the carriage (FIG. 2, elements 8-9).

**Referring to claims 12, 21-22:** wherein the recording head comprises a heating unit for generating energy for ejecting ink drops (paragraph [0018]).

**Referring to claim 6:** further comprising a sliding member for slidably supporting the carriage during the serial movement of the carriage (FIG. 2, elements 10 and 11), wherein the width of the gap between the recording head and a back surface of a recording medium is adjusted by displacement of the sliding member (FIG. 2-4: when the sliding support 11 is displaced, the distance L1 or L2 is changed).

**Referring to claims 13, 23:** recognizing means for recognizing a recording state of the recording apparatus by detecting a serially movable range of the carriage from the position of the carriage detected by the position detecting means (FIG. 2: elements 8-9 detect the position of the head 1 in a predetermined movement range along the scanning direction).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiniji (JP 06344624) in view of Takemura et al. (US 5988784).

Shiniji discloses the claimed invention as discussed above except a platen, wherein a part of the platen for supporting the back surface of a recording medium is located at the back surface of a recording medium (column 16, line 35-37) (**Referring to claims 2, 15**) and control means for changing ink-drop-ejection timing on the basis of a state of the changing means (column 4,

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lines 17-40: a recording timing is corrected based on a given correction value in accordance to a plurality of set conditions such as a distance from the recording head and the printing medium) (Referring to claims 4, 17).

Takemura et al. disclose an ink jet recording apparatus having a printhead, a platen for supporting the back surface of a recording medium (column 16, line 35-37), and control means for changing ink-drop-ejection timing on the basis of the distance between the printhead and the recording medium (column 4, lines 17-40: a recording timing is corrected based on a given correction value in accordance to a plurality of set conditions such as a distance from the recording head and the printing medium).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the printing apparatus disclosed by Shiniji such that including control means for changing ink-drop-ejection timing on the basis of the distance between the printhead and the recording medium as disclosed by Takemura et al. The motivation of doing so is directed to the use of a variety of recording medium while minimizing deviations if dots are recorded when there is bidirectional movement of the carriage as taught by Takemura et al. (column 3, line 65 to column 4, line 2).

***Allowable Subject Matter***

Claims 5, 7-11, 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Referring to claims 5, 18:** The most pertinent art fails to disclose wherein the range of the serial movement of the carriage is changed in accordance with the displacement of the

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changing means which is accompanied by operation of the changing means. Therefore, the claimed invention is not disclosed by the cited prior art.

Claims 7-11 and 19-20 are allowable because they depend directly/indirectly on claim 5 or 18.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
May 21, 2004

  
HAI PHAM  
PRIMARY EXAMINER